

STRATEGIC AIRLIFT



UMODD01
TBOLC 500-500-21

C-17 Globemaster III

MCDONNELL DOUGLAS



References

DOD 4500.9-R, DTR, Part III,
Mobility

FM 55-9, *Unit Air Movement
Planning*



AMC AIRCRAFT AIRLIFT CAPABILITIES

Definitions

Inter-theater operations
(between two theaters - strategic)



CARGO ONLY AIRCRAFT



CARGO / REFUELING AIRCRAFT

Intra-theater operations
(within a specific theater - tactical)



C-130 HERCULES PROFILE



- **First Entered Service: April 1955**
- **Over 25 variations in use**
- **C-130J Model (Newest-Pictured)
Replacing Aging E Model C-130s**

C-130 "Hercules"

- Primary Function: Tactical/ intra-theater airlift.
- Length: 97 feet, 9 inches
- Height: 38 feet, 3 inches
Wingspan: 132 feet
- Maximum Takeoff Weight: 155,000 pounds
Range: 2,356 miles with maximum payload; 5,200 miles with no cargo



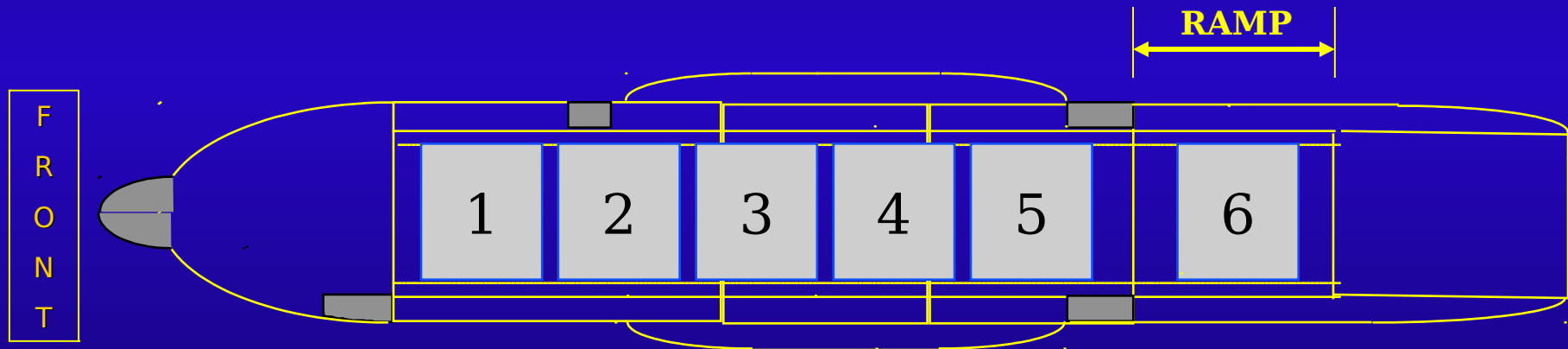
C-130 "Hercules"

(Cont.)

- Cargo Compartment:
Length 41 feet
Width 108 inches
Height 9 feet
- Rear ramp (one pallet position); length, 88 inches; width, 108 inches; height, 76 inches

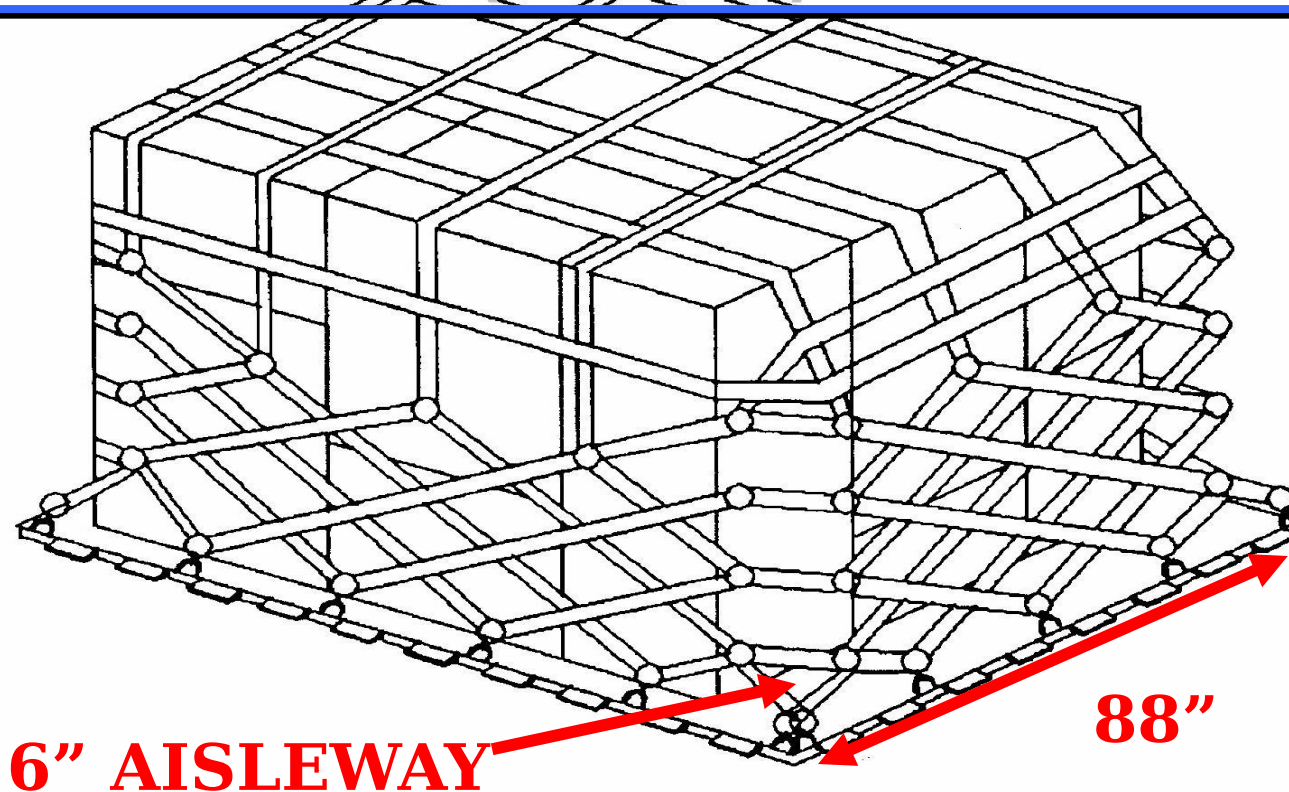


C-130 "Hercules" (Cont)



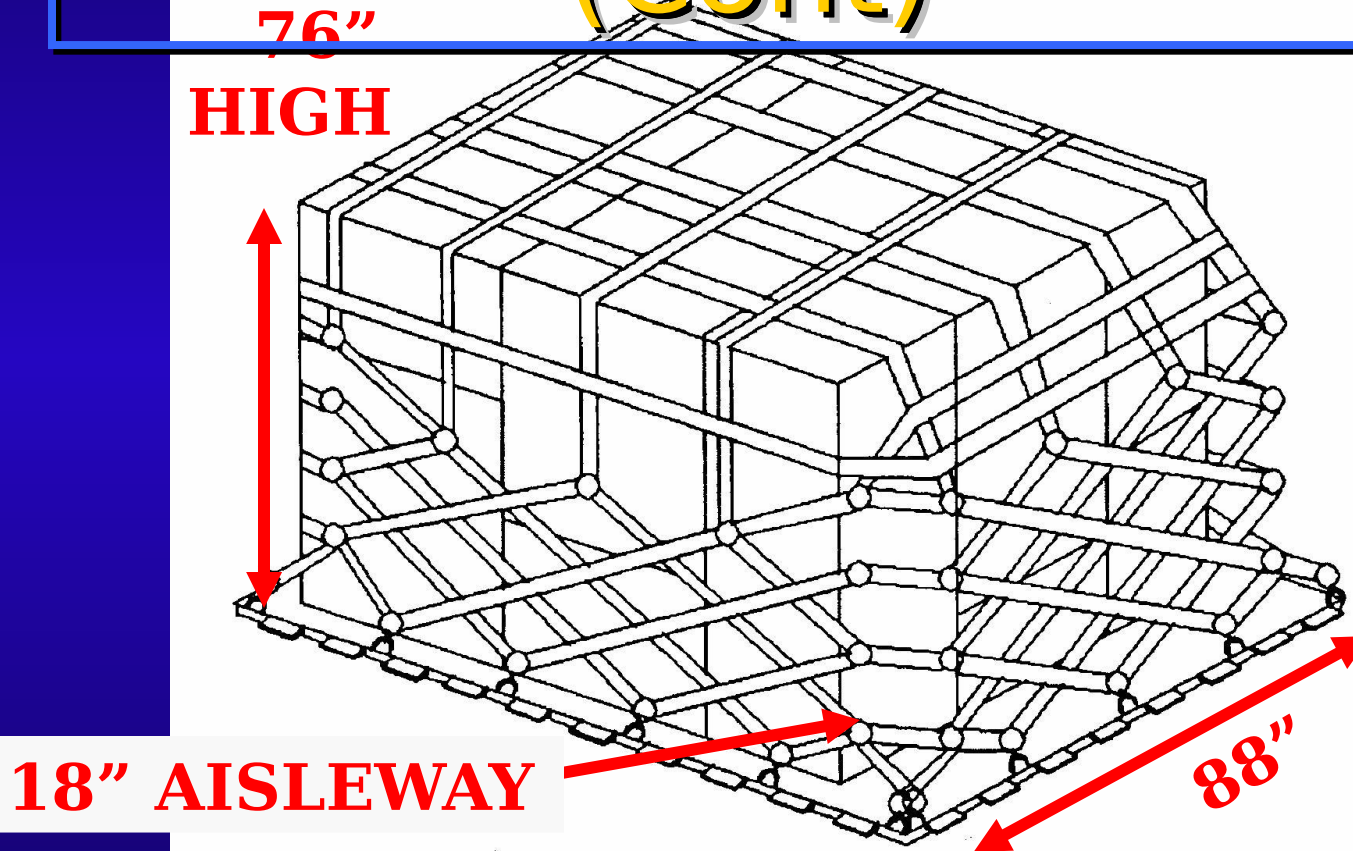
C-130 PALLET POSITIONS

C-130 "Hercules" (Cont)



C-130 PALLET POSITIONS 3 & 4

C-130 "Hercules" (Cont)



C-130 RAMP PALLET POSITION
#6

C-130 "Hercules"

(Cont.)



- Crew: **Five** (two pilots, a navigator, flight engineer and loadmaster); transports up to 92 troops, 64 paratroops, 74 litter patients, or six standard freight pallets. Maximum cargo capacity is 45,000 pounds

C-17 GLOBEMASTER III PROFILE



- **Outsize Cargo Airlifter**
- **Strategic / Tactical Long Range, High Speed, Heavy Transport**
- **Replacing Aging C-141Bs**
- **Provides Direct Delivery: Cargo - Pax**
- **Entered Service: Jan 1995**
- **Programmed to receive 120 by 2005**

C-17 “Globemaster III”

- Primary Function: Cargo and troop transport
- Wingspan: 169 feet 10 inches (to winglet tips)
- Length: 174 feet
- Range: Global with in-flight refueling.
- Height: 55 feet 1 inch
- Maximum peacetime takeoff weight: 585,000 pounds

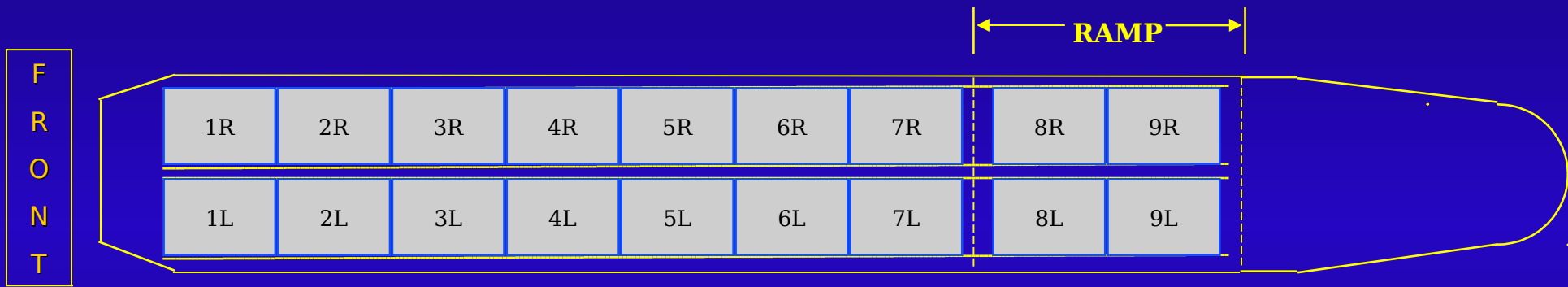


C-17 “Globemaster III” (Cont)

- Cargo Compartment:
- Length: 88 feet
- Width: 18 feet
- Height: 12 feet, 4 inches
- Cargo Load: 170,900 pounds of cargo (18 pallet positions)



C-17 “Globemaster III” (Cont)



PALLETS MUST BE ROTATED 90 DEGREES WHEN LOADING THIS CONFIGURATION

C-17 PALLET POSITIONS LOGISTICS CONFIGURATION

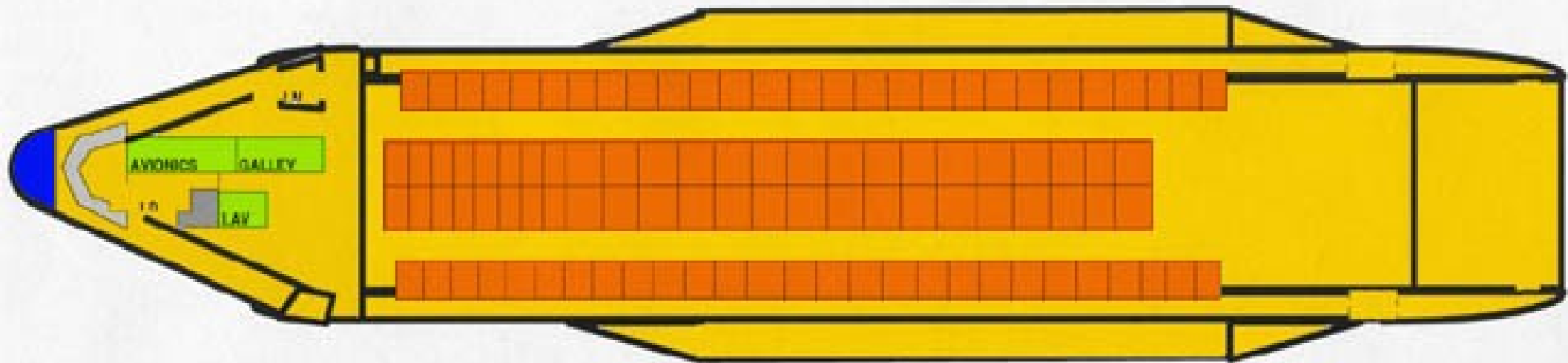
C-17 “Globemaster III” (Cont)



- Crew: Three (two pilots and one loadmaster)
- Load: 102 troops/paratroops; 48 litter and 54 ambulatory patients and attendants

C-17 "Globemaster III" (Cont)

TROOP SEATING DIAGRAM



TROOP CONFIGURATION

BASIC

54 INTEGRAL SIDE SEATS

48 CENTER SEATS

102 TOTAL SEATS

C-17 “Globemaster III” (Cont)

**CLOSE-UP VIEW
OF TROOP SEAT**



C-17 “Globemaster III” (Cont)

C-17 “TYPICAL LOAD”



C-5 GALAXY PROFILE

- **Outsize Cargo Airlifter**
- **Long Range, High Speed, Heavy Transport**
- **A Model Entered Service: June 1970**
- **B Model Entered Service: 1986**



C-5 “Galaxy”

- Primary function: Outsized cargo transport
- Wingspan: 222.9 feet Length: 247.1 feet
- Range: 4,400 miles (loaded)
11,500 miles (unloaded)



C-5 “Galaxy” (Cont)

- Special ability to lower front or rear of aircraft for loading (pilot, co-pilot, two flight engineers and three



Forward kneeling

C-5 “Galaxy” (Cont)

**C-5 KNEELED - FWD & AFT RAMP
OPEN
“DRIVE THRU CAPABILITY”**



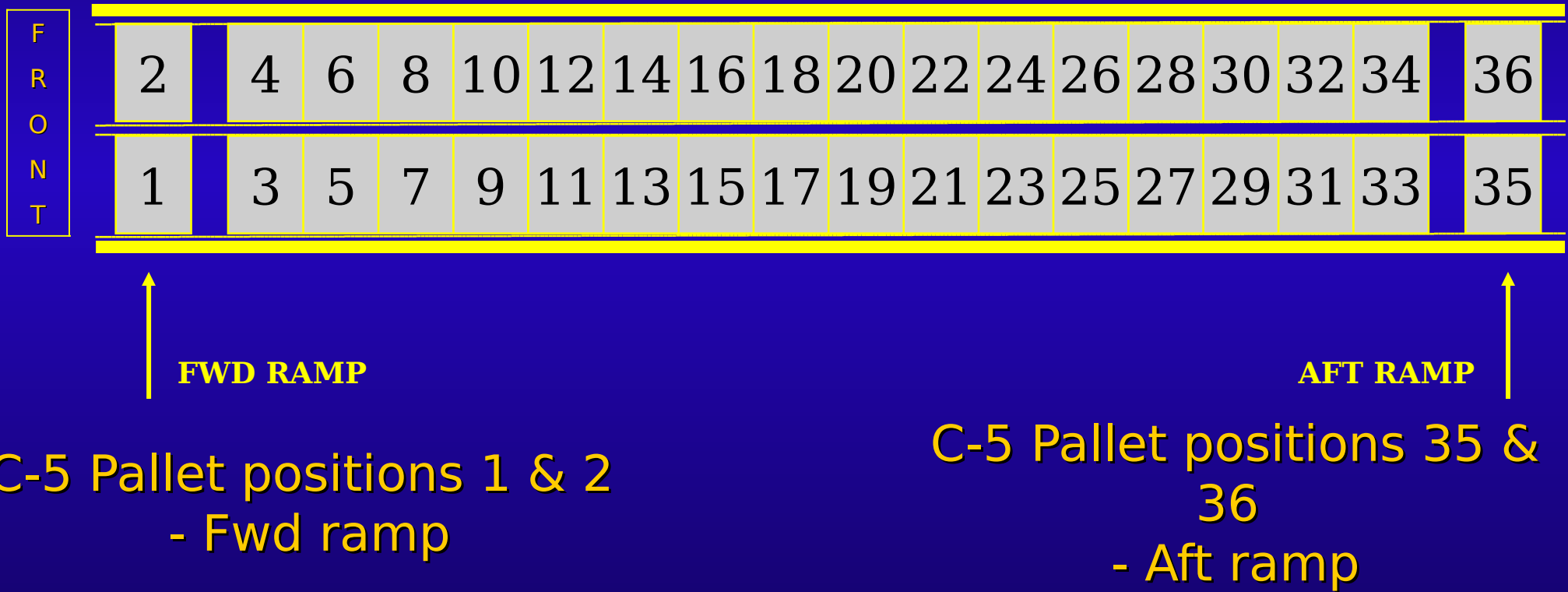
C-5 “Galaxy” (Cont)

- Cargo compartment: Height: 13.5 ft
Width: 19 ft
Length: 143 ft, 9 inches
- Maximum cargo capacity: 170,000 lbs

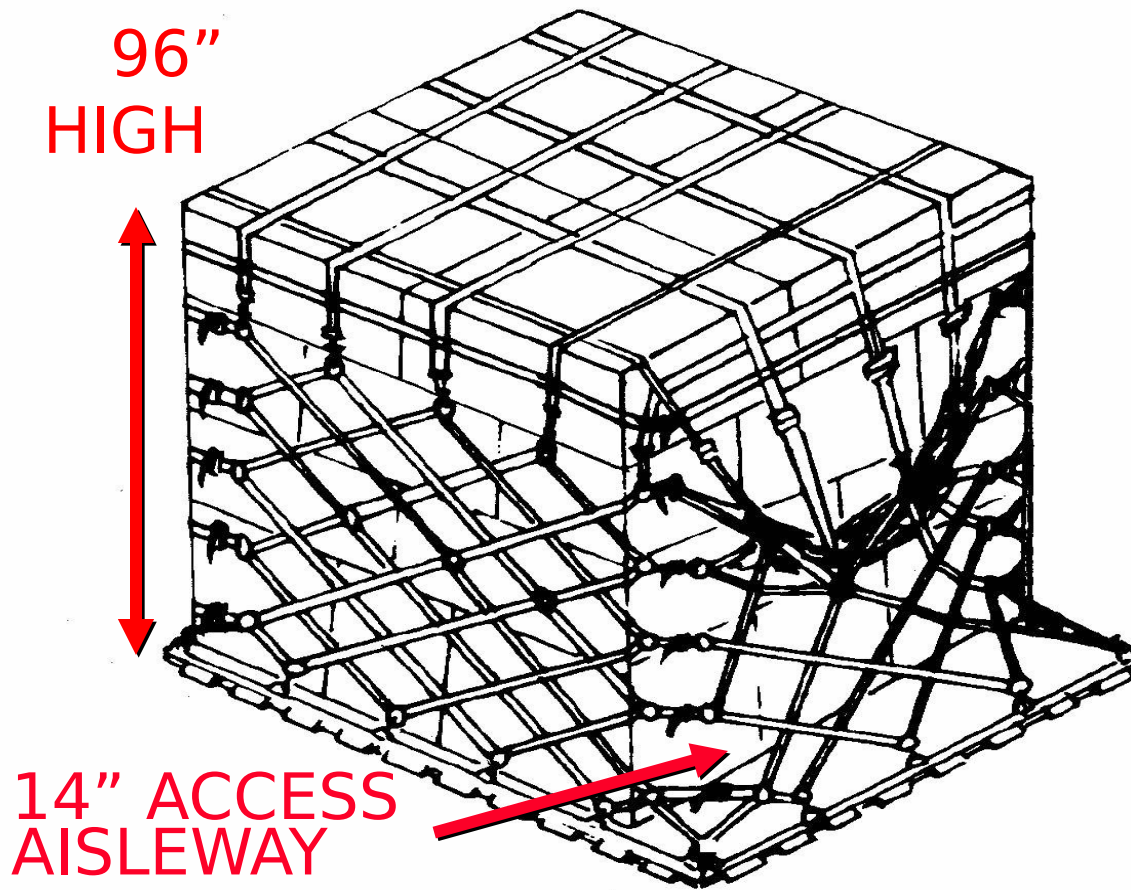


C-5 “Galaxy” (Cont)

C-5 Pallet Positions - 36

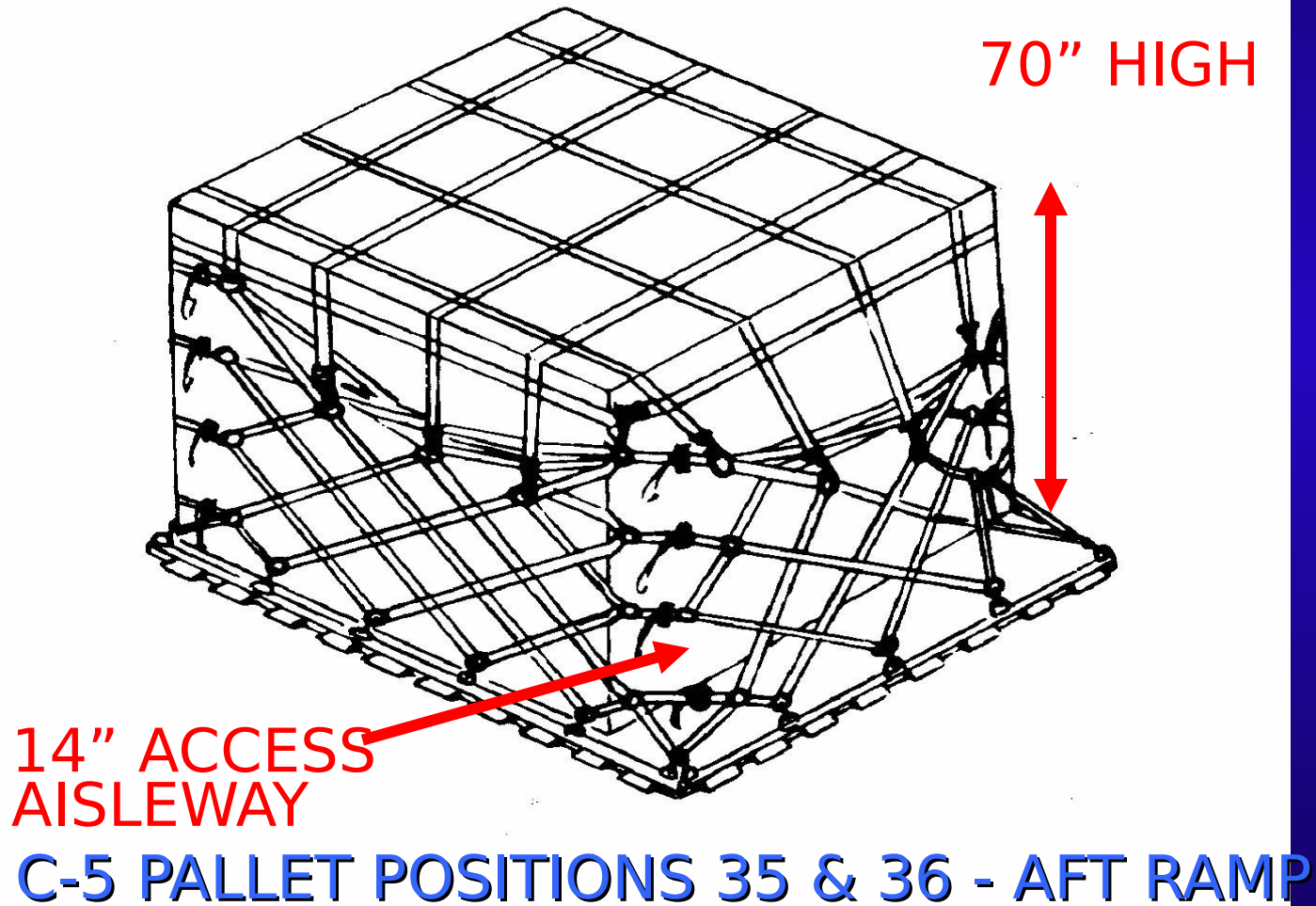


C-5 "Galaxy" (Cont)



C-5 PALLET POSITIONS 1 & 2 - FWD RAMP

C-5 "Galaxy" (Cont)



C-5 “Galaxy” (Cont)



**TROOP COMPARTMENT
SEATING**

KC-10 EXTENDER PROFILE



- **Dual Role: Cargo / Passengers - Inflight Refueling**
- **Max. Fuel Load: 356,000 Lbs. (Six fuel cells)**
- **Max. Unrefueled Range: 4,400 NM With Cargo (85 S/T)**
- **Maximum Takeoff Weight: 590,000 Lbs.**
- **Entered Service: March 1981**

KC-10A

“Extender”

- Primary Function: Aerial tanker and transport
- Length: 181 feet, 7 inches Height: 58 feet, 1 inch
- Wingspan: 165 feet, 4.5 inches
- Maximum Takeoff Weight: 590,000 pounds
- Range: 4,400 miles (3,800 nautical miles) with cargo



KC-10 INFLIGHT REFUELING MISSION



KC-10A “Extender” (Cont)

- Maximum Cargo Payload: 170,000 pounds
- Pallet Positions: 25
- Crew: Four (aircraft commander, pilot, flight engineer and boom operator)



KC-10A “Extender” (Cont) KC-10 PALLET POSITIONS



- **NOTE:** Positions 1L & 1R are normally not used (seats installed) Pallet position 13L is not offered for cargo
- Pallets must be rotated 90 degrees to be loaded

KC-10A "Extender" (Cont)

CARGO COMPARTMENT - AFT

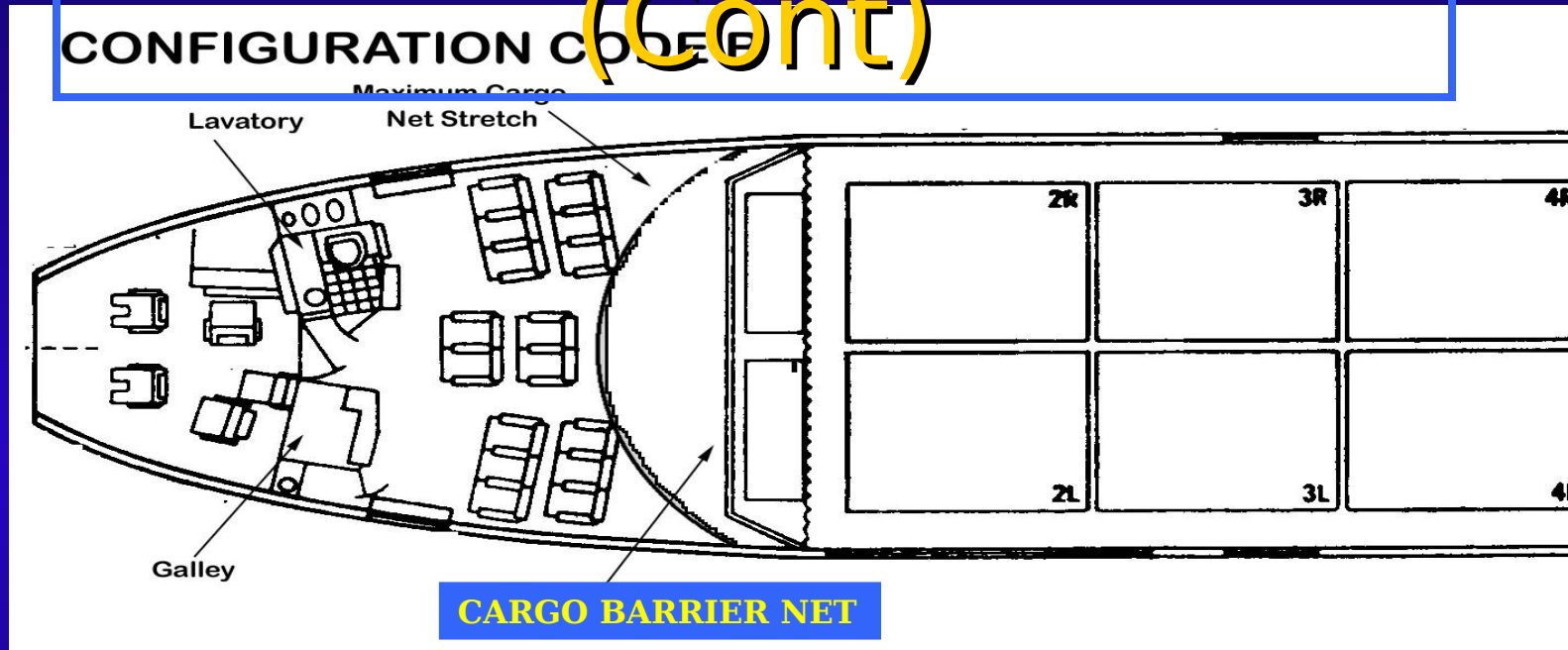


Courtesy: Dan Pare

TROOP SEATS



KC-10A “Extender” (Cont)



22 PALLET POSITIONS AVAILABLE

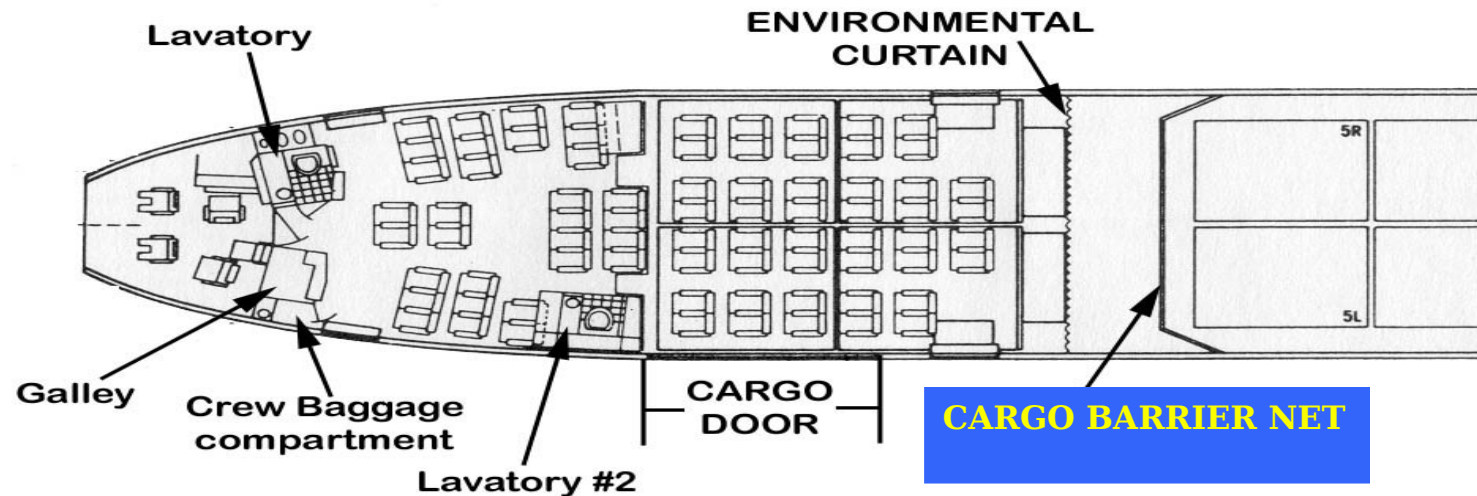
10 TROOP SEATS AVAILABLE

6 ADDITIONAL CREW MEMBERS

16 TOTAL SEATS

KC-10A "Extender" (Cont)

CONFIGURATION CODE D



16 PALLET POSITIONS AVAILABLE

69 TROOP SEATS AVAILABLE

6 ADDITIONAL CREW MEMBERS

75 TOTAL SEATS

KC-10A “Extender” (Cont)

KC-10 MHE MILITARY LOADER (TUNNER)



KC-10A "Extender"

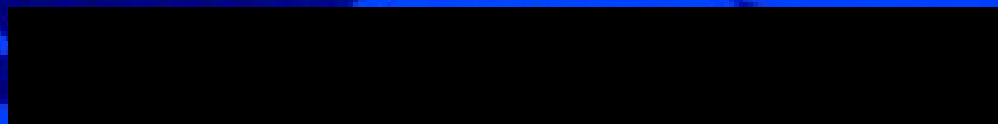
KC-10 MHE (CONT) COMMERCIAL LOADER





SMALL AUSTERE AIRFIELD ACCESS PROVIDES NEEDED FLEXIBILITY

C-17 CAPABILITY 10,000



C-5 CAPABILITY 850

FREE WORLD, EXCLUDING U.S.

Civil Reserve Air Fleet (CRAF)



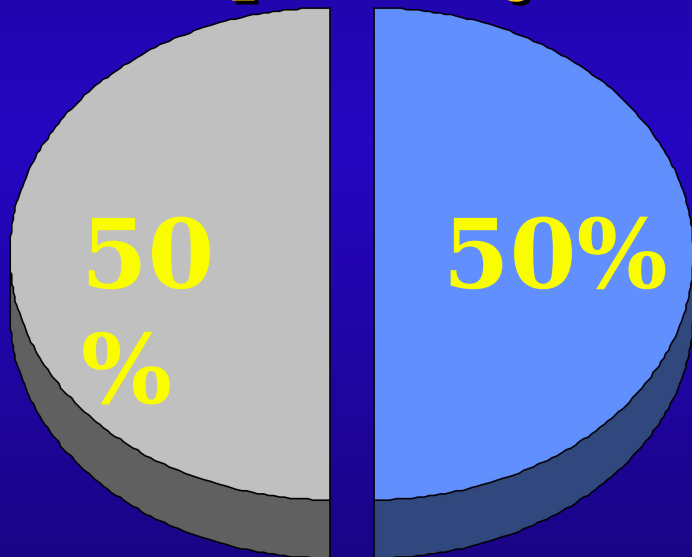
CRAF (Cont)

- **CRAF** is a voluntary contractual program designed to augment US military airlift forces with civil air carriers to support national defense emergency airlift requirements

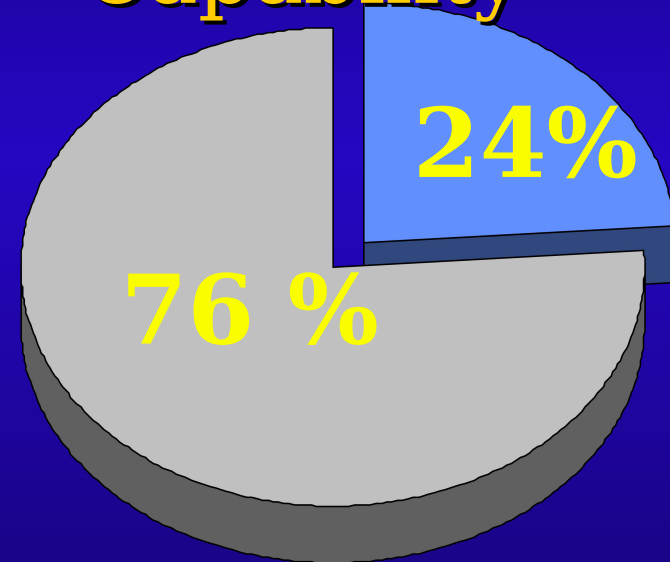


CRAF (Cont)

Strategic
Capability



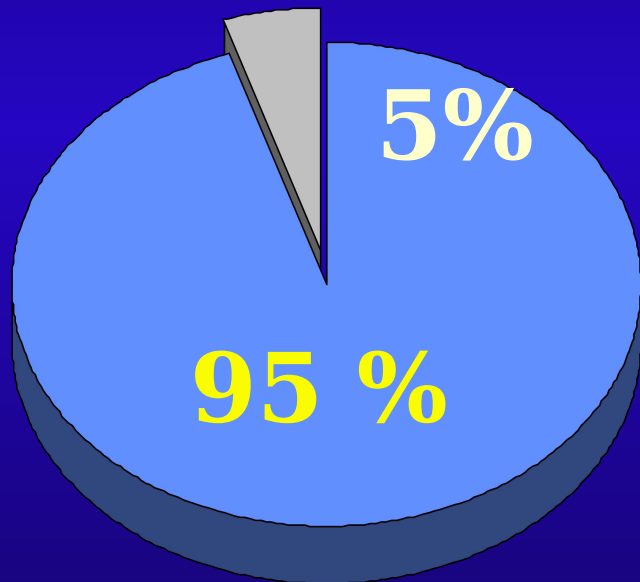
Cargo Lift
Capability



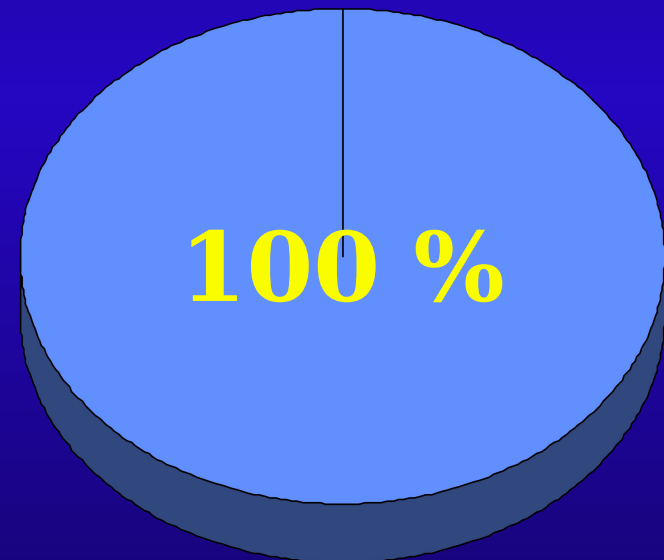
■ **ORGANIC AIRLIFT**
■ **COMMERCIAL AIRLIFT**

CRAF (Cont)

Passenger
Lift Capability



Aeromedical
Evac Lift
Capability



CRAF (Cont)

CRAF OPERATIONAL STAGES

- ✈ STAGE I - Committed expansion to 77 aircraft
- ✈ STAGE II - Airlift Emergency - additional 182
- ✈ STAGE III - Military Emergencies up to an additional 544 aircraft available

NOTE: DOES NOT HAVE TO BE ACTIVATED IN STAGE ORDER

****CRAF AIRCRAFT TOTALS CHANGE QUARTERLY****

CRAF (Cont)

- CRAF Operational Segments
 - International segment:
 - + Short range section
 - + Long range section
 - Aeromedical segment
 - National segment:
 - + Domestic & Alaska sections

QUESTIONS ???



SUMMARY





On
Learnin
g



On Learnin

QUESTION 1: What are the two primary aircraft used for strategic airlift of soldiers and cargo?

Answer 1: The C-17 and the C-5



On Learnin g

QUESTION 2: What military cargo aircraft provides strategic airlift for moving outsized and oversized cargo?

Answer 2: The C-5



On Learnin g

QUESTION 3: What is the purpose of the Civil Reserve Air Fleet?

Answer 3: CRAF is designed to augment US Military airlift forces with civil air carriers to support National Defense airlift requirements.

TAKE A 10 MIN BREAK

